

REMARKS

Applicants respectfully request reconsideration in view of the foregoing amendments and the following remarks.

It is respectfully submitted that the rejection of claims 10-11 under 35 U.S.C. §101 has been rendered moot in view of their cancellation.

The rejection of claims 1-11 under the second paragraph of 35 U.S.C. §112 is deemed to have been overcome by new claims 12-20 and, accordingly, the withdrawal of the rejection is respectfully solicited.

The Examiner has rejected claims 1-5 and 8 under 35 U.S.C. §102(b) as being anticipated by Oishi, U.S. 5,165,933 or Kim et al., Journal of Korean Fish Soc., 1996. These rejections are respectfully traversed.

Applicants strenuously disagree with the Examiner's rejection under 35 U.S.C. 102(b), under the principles of inherency in that the prior art references relied upon by the Examiner fail to disclose, teach or suggest the specific structure of the claimed compound which exhibits excellent antioxidative activity.

Turning to Oishi, U.S. Patent No. 5,165,933, this patent attempts to obtain sugar-based ingredients as a restriction enzyme inhibitor from various seaweeds. (See Column 1, lines 45-48; column 5, lines 6-10; and Table 4). The Oishi patent, however, does not disclose or suggest an antioxidative compound as claimed in the present invention. In this regard, the Examples of the present invention confirm the unexpected antioxidative activity of the particular claimed compound over the conventional antioxidant (i.e., BHT), as well as desirable thermal stability, while those of the Oishi patent merely discuss the inhibitory

activity of the extracts of the various seaweeds against restriction enzymes.

According to the Oishi patent, seaweeds are extracted with hot water to obtain the target sugar-based ingredients, and a water-miscible solvent (such as methanol and ethanol), which is a non-solvent for the target ingredients, is added to obtain a precipitate from the extract. Then the undissolved ingredients (i.e., residue) are recovered as a restriction enzyme inhibitor. (See, column 2, lines 1-18).

In clear contrast to the teaching of the Oishi patent, the claimed invention uses methanol as a co-solvent to obtain dissolved ingredients, in which the claimed compound is contained. This stems from the difference in solubility characteristics between the claimed compound and the Oishi restriction enzyme inhibitor. In light of the above, it is apparent that the claimed compound is readily distinguishable from the restriction enzyme inhibitor of the Oishi patent. Accordingly, the claimed invention cannot be said to be anticipated by the disclosure of the Oishi patent.

In regard to the Kim *et al.* reference, the instant application claims a novel compound which has a specific chemical structure and exhibits excellent antioxidative activity, rather than the extract of *Ecklonia Cava* itself. It is clearly unreasonable for the Examiner to maintain that any prior art disclosing the extract of *Ecklonia Cava* inevitably anticipates the claimed compound. Please note that there is no teaching, disclosure, or even suggestion of antioxidative activity or of the particular claimed compound in the Kim *et al.* reference.

Thus, it is respectfully submitted that since the claims clearly distinguish over the teachings of the Oishi and Kim *et al.*, references, the withdrawal of the §102(b) rejections is

solicited since a *prima facie* case of anticipation has not been established.

The Examiner has also rejected claims 1 and 2 under §102(b) over Nakamura et al., Lee et al., Taniguchi et al., Kamata et al., Itatani et al., Narisu Keshhin KK or Nakamura.

This rejection is respectfully traversed.

Along the same line, applicants maintain that the foregoing prior art references fail to disclose the particular claimed compound and the antioxidative activity thereof, taking into consideration the very large number of possible ingredients which may be present in a simple extract of *Ecklonia Cava*.

Moreover, in the method claims, applicants have incorporated the three (3) fractionating steps recited in original Claims 6 and 7, which have not been rejected as being anticipated. The Examiner should take note that the claimed antioxidative compound is obtained with a good efficiency and selectivity by the claimed method. This feature is not taught by the cited prior art references.

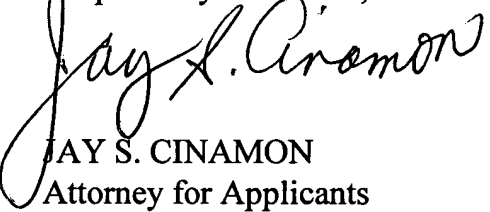
Since all of the claims distinguish over the prior art references, the §102(b) rejection has been overcome and should be withdrawn.

The Examiner has requested clarification as to whether the inventors' names are the same as those listed in Japanese Patent Publication No. 2001-1302655, which is equivalent to the present application. In this regard, please note that the inventors' names are incorrectly spelled in the Japanese Publication. Applicants believe that such discrepancies are due to spelling the Japanese pronunciation of the inventors' names in the English language.

The issuance of a Notice of Allowance is respectfully solicited.

Please charge any fees which may be due and which have not been submitted
herewith to our Deposit Account No. 01-0035.

Respectfully submitted,


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